

Claims

WHAT IS CLAIMED IS:

1. A nail polish remover comprising an effective amount of at least one heterocyclic solvent having a carbonyl moiety.
- 5 2. The nail polish remover of Claim 1, comprising at least about 80 parts propylene carbonate (PC).
3. The nail polish remover of Claim 2, further comprising from about 0.1 to about 2.5 parts Vitamin E.
- 10 4. The nail polish remover of Claim 2, further comprising from about 1 to about 10 parts of at least one oily solvent.
5. The nail polish remover of Claim 4, wherein the oily solvent is methyl soyate.
6. The nail polish remover of Claim 4, wherein the oily solvent is canola oil.
7. The nail polish remover of Claim 2, further comprising from about 1 to about 20 parts dipropylene glycol methyl ether (DPM).
- 15 8. The nail polish remover of Claim 7, comprising about 80 parts PC and about 20 parts DPM.
9. The nail polish remover of Claim 7, comprising about 85 parts PC and about 15 parts DPM.
10. The nail polish remover of Claim 7, comprising about 90 parts PC and about 10 parts DPM.
- 20 11. The nail polish remover of Claim 7, comprising about 95 parts PC and about 5 parts DPM.
12. The nail polish remover of Claim 7, comprising about 99 parts PC and about 1 part DPM.
- 25 13. The nail polish remover of Claim 7, further comprising from about 0.1 to about 2.5 parts Vitamin E.
14. The nail polish remover of Claim 7, further comprising from about 1 to about 10 parts of at least one oily solvent.
15. The nail polish remover of Claim 14, wherein the oily solvent is methyl soyate.
- 30 16. The nail polish remover of Claim 15, comprising about 85 parts PC, about 10 parts DPM, and about 5 parts methyl soyate.

17. The nail polish remover of Claim 15, further comprising about 0.5 parts Vitamin E.
18. The nail polish remover of Claim 14, wherein the oily solvent is canola oil.
19. The nail polish remover of Claim 18, comprising about 85 parts PC, about 10 parts DPM, and about 5 parts canola oil.
- 5 20. The nail polish remover of Claim 18, further comprising about 0.5 parts Vitamin E.
21. The nail polish remover of Claim 1, comprising an effective amount of a mixture of at least two heterocyclic solvents, each having a carbonyl moiety.
- 10 22. The nail polish remover of Claim 21, wherein the mixture comprises from about 25% v/v N-methyl pyrrolidinone (NMP) to about 75% v/v NMP and from about 25% v/v butyrolactone (BLO) to about 75% v/v BLO.
23. The nail polish remover of Claim 22, comprising about 75% v/v NMP and about 25% v/v BLO.
- 15 24. The nail polish remover of Claim 21, wherein the mixture comprises from about 25% v/v NMP to about 75% v/v NMP and from about 25% v/v ethylene carbonate (EC) to about 75% v/v EC.
25. The nail polish remover of Claim 24, comprising about 50% v/v NMP and about 50% v/v EC.
- 20 26. The nail polish remover of Claim 21, wherein the mixture comprises from about 25% v/v NMP to about 75% v/v NMP, and from about 25% v/v BLO to about 75% v/v BLO, and from about 25% v/v EC to about 75% v/v EC.
27. The nail polish remover of Claim 26, comprising about 50% v/v NMP, about 25% v/v BLO, and about 25% v/v EC.
- 25 28. The nail polish remover of Claim 1, further comprising a thickening agent at a concentration of between about 0.1% w/v to about 5.0% w/v.
29. The nail polish remover of Claim 28, wherein the thickening agent is selected from the group consisting of carbopol and methylcelluloses.
30. The nail polish remover of Claim 29, wherein the thickening agent is methylcellulose at a concentration of about 0.25% w/v.
- 30 31. The nail polish remover of Claim 30, wherein the nail polish remover is a gel.

32. A method of removing nail polish from a surface, comprising:

(a) applying a nail polish remover to the surface, the nail polish remover comprising an effective amount of at least one heterocyclic solvent having a carbonyl moiety;

5 (b) allowing the fingernail polish remover to solubilize the nail polish; and

(c) removing the solubilized nail polish from the surface.

33. The method of Claim 32, wherein the surface is a fingernail or a toenail.

34. The method of Claim 32, wherein the at least one heterocyclic solvent is selected from the group consisting of pyrrolidinones, lactones, oxazolidinones, piperidones, hydantoin, 10 cyclic carbonates, and cyclic ureas.

35. The method of Claim 34, wherein the at least one heterocyclic solvent is selected from the group consisting of propylene carbonate (PC), N-methyl pyrrolidinone (NMP), butyrolactone (BLO), and ethylene carbonate (EC).

36. The method of Claim 35, wherein the nail polish remover comprises at least about 15 80 parts propylene carbonate (PC).

37. The method of Claim 36, wherein the nail polish remover further comprises from about 0.1 to about 2.5 parts Vitamin E.

38. The method of Claim 36, wherein the nail polish remover further comprises from about 1 to about 10 parts of at least one oily solvent.

20 39. The method of Claim 38 wherein the oily solvent is methyl soyate.

40. The method of Claim 38, wherein the oily solvent is canola oil.

41. The method of Claim 36, wherein the nail polish remover further comprises from about 1 to about 20 parts dipropylene glycol methyl ether (DPM).

25 42. The method of Claim 41, wherein the nail polish remover comprises about 80 parts PC and about 20 parts DPM.

43. The method of Claim 41, wherein the nail polish remover comprises about 85 parts PC and about 15 parts DPM.

44. The method of Claim 41, wherein the nail polish remover comprises about 90 parts PC and about 10 parts DPM.

30 45. The method of Claim 41, wherein the nail polish remover comprises about 95 parts PC and about 5 parts DPM.

46. The method of Claim 41, wherein the nail polish remover comprises about 99 parts PC and about 1 part DPM.

47. The method of Claim 41, wherein the nail polish remover further comprises from about 0.1 to about 2.5 parts Vitamin E.

5 48. The method of Claim 41, wherein the nail polish remover further comprises from about 1 to about 10 parts of at least one oily solvent.

49. The method of Claim 48, wherein the oily solvent is methyl soyate.

50. The method of Claim 49, wherein the nail polish remover comprises about 85 parts PC, about 10 parts DPM, and about 5 parts methyl soyate.

10 51. The method of Claim 50, wherein the nail polish remover further comprises about 0.5 parts Vitamin E.

52. The method of Claim 48, wherein the oily solvent is canola oil.

53. The method of Claim 52, wherein the nail polish remover comprises about 85 parts PC, about 10 parts DPM, and about 5 parts canola oil.

15 54. The method of Claim 53, wherein the nail polish remover further comprises about 0.5 parts Vitamin E.

55. The method of Claim 35, wherein the nail polish remover comprises from about 25% v/v NMP to about 75% v/v NMP and from about 25% v/v BLO to about 75% v/v BLO.

20 56. The method of Claim 55, wherein the nail polish remover comprises about 75% v/v NMP and about 25% v/v BLO.

57. The method of Claim 35, wherein the nail polish remover comprises from about 25% v/v NMP to about 75% v/v NMP and from about 25% v/v EC to about 75% v/v EC.

58. The method of Claim 57, wherein the nail polish remover comprises about 50% v/v NMP and about 50% v/v EC.

25 59. The method of Claim 35, wherein the nail polish remover comprises from about 25% v/v NMP to about 75% v/v NMP, from about 25% v/v BLO to about 75% v/v BLO, and from about 25% v/v EC to about 75% v/v EC.

60. The method of Claim 59, wherein the nail polish remover comprises about 50% v/v NMP, about 25% v/v BLO, and about 25% v/v EC.

30 61. The method of Claim 32, wherein the nail polish remover further comprises a thickening agent at a concentration of between about 0.1% w/v to about 5.0% w/v.

62. The method of Claim 61, wherein the thickening agent is selected from the group consisting of carbopol and methylcelluloses.

63. The method of Claim 62, wherein the thickening agent is methylcellulose at a concentration of about 0.25% w/v.

5 64. The method of Claim 35, wherein the nail polish remover is a gel.